

FIG. 2

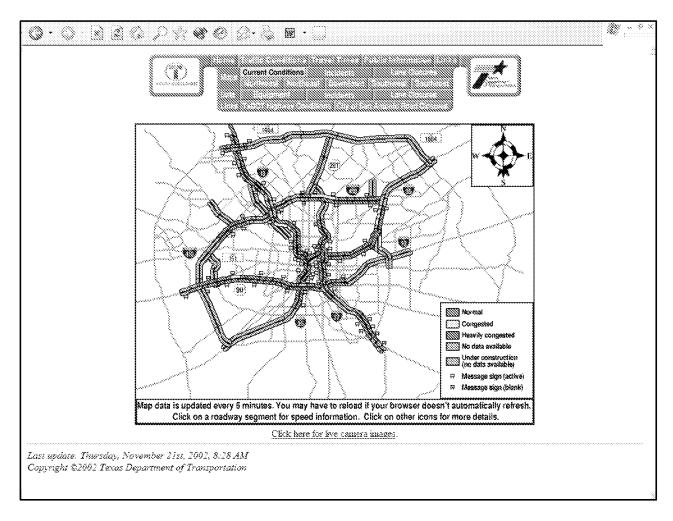




FIG. 3

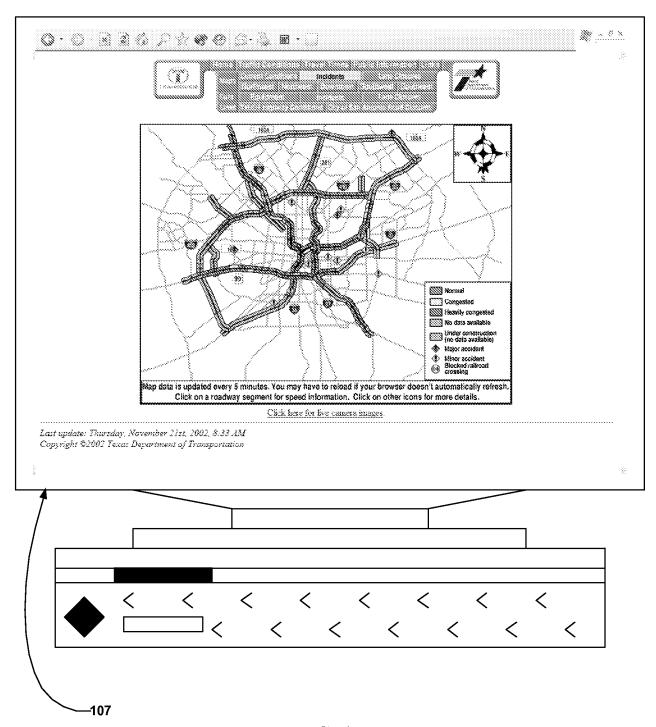
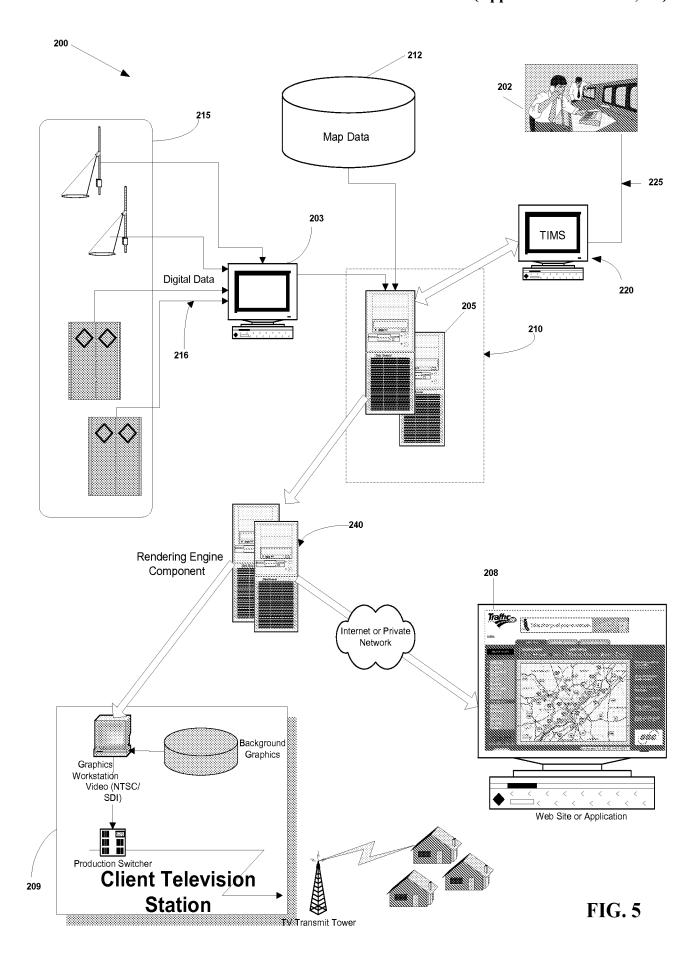


FIG. 4



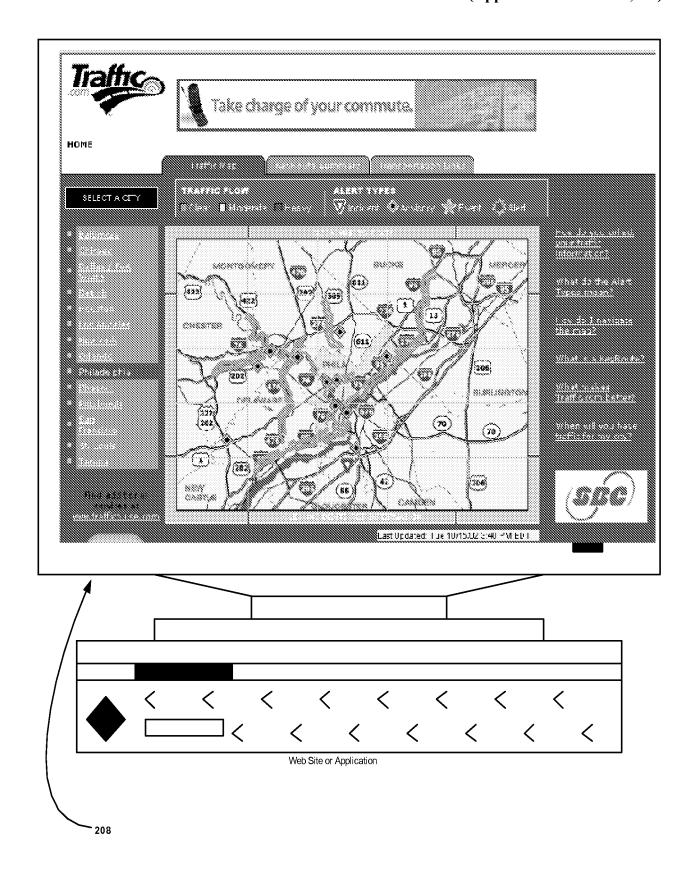
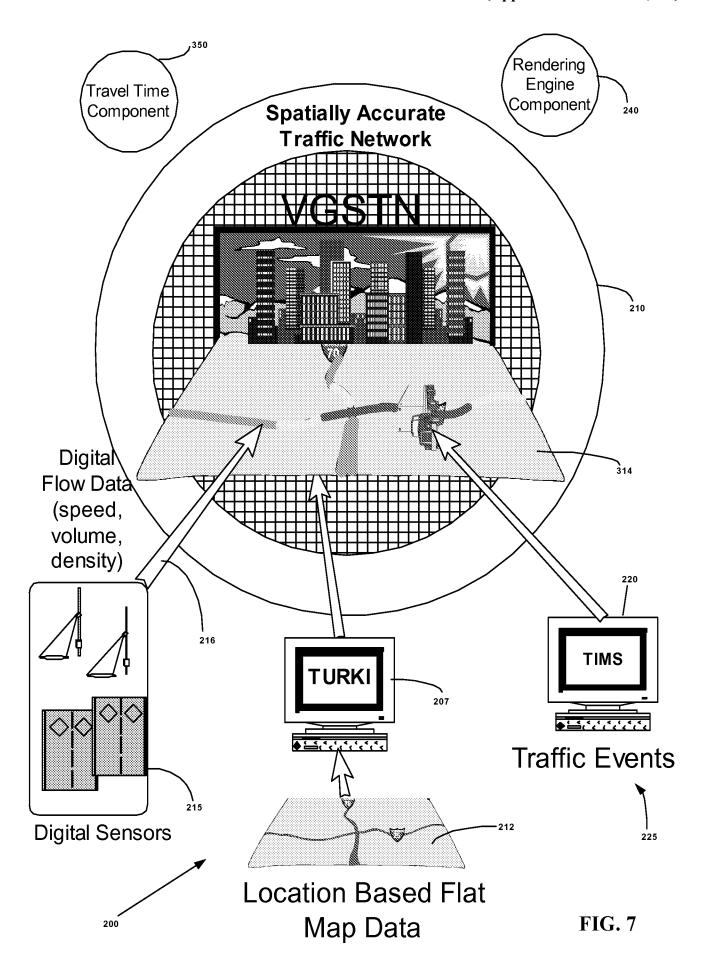
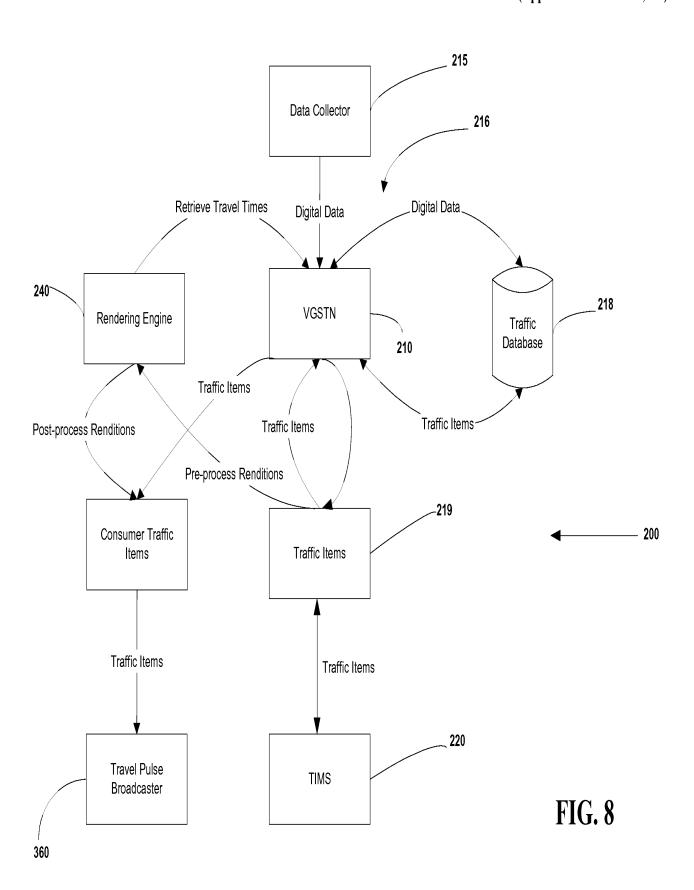
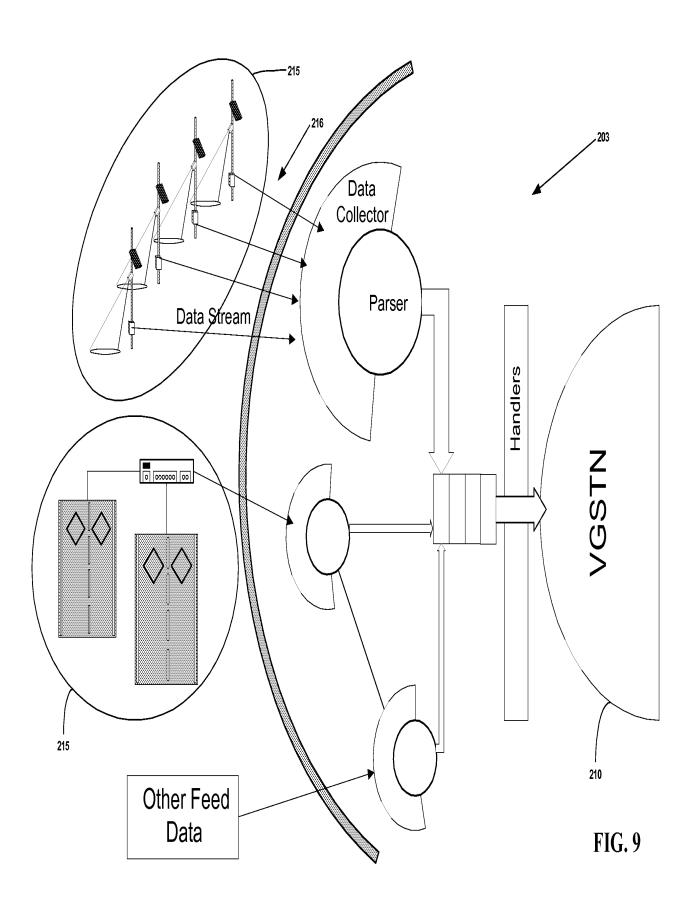


FIG. 6







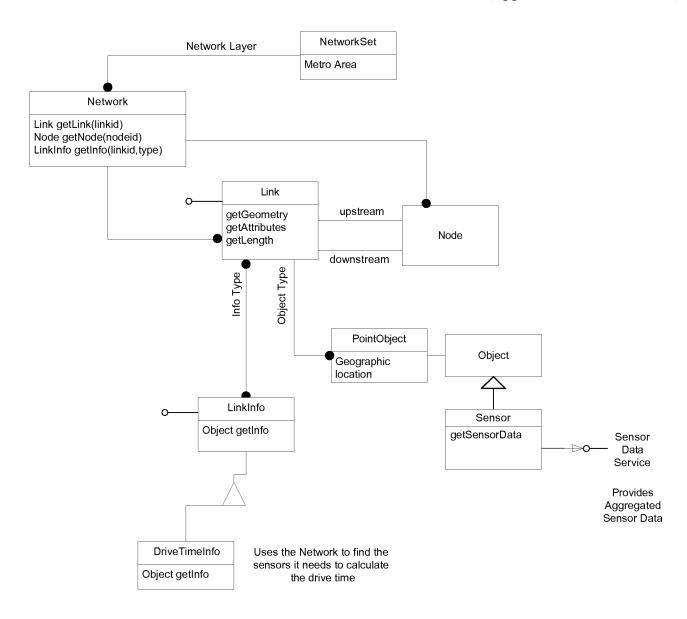
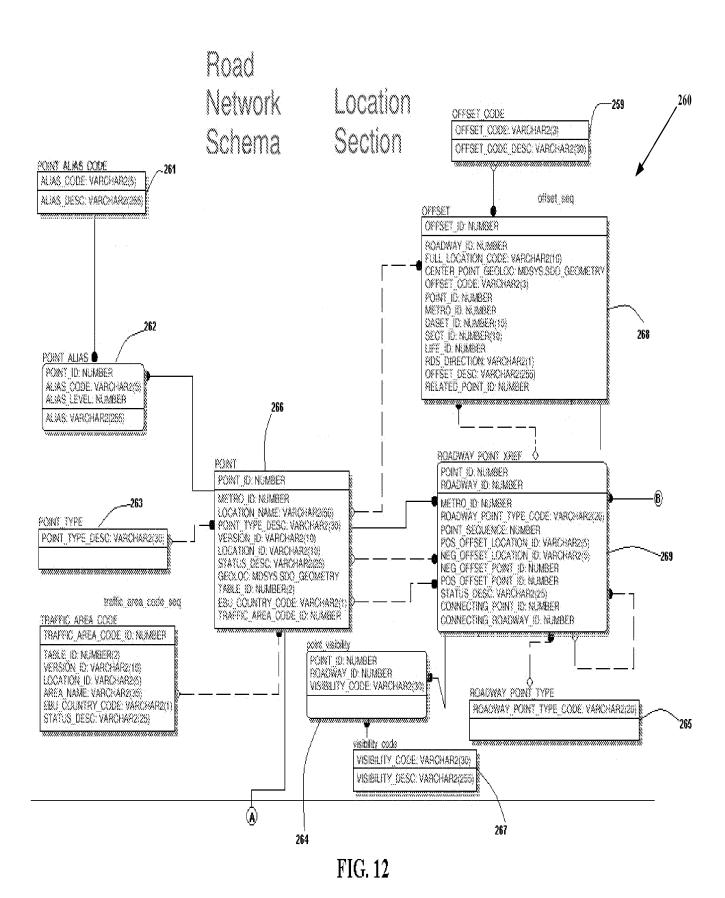


FIG. 10

Table of Stored Procedures for the TURKI

TURKI Procedure	Purpose or Function
check_roadway_flags	TURKI can not inactivate a roadway that is on the "roadway short" or
	"report no problem" lists in the TIMS. This procedure is called to
	determine if a given roadway is part of those lists.
insert_roadway	Creates a new roadway.
create_road_from_intersections	Creates a new roadway using an array of intersection points.
split_roadway	Splits an existing roadway into 2 roadways.
insert_roadway_aliases	Reinserts new aliases to the roadway alias table 275 for any type passed
	other than unchangeable commercial mapping data.
insert_road_direction_aliases	Reinserts new aliases to the roadway direction alias table 274 for any
	type passed other than unchangeable commercial mapping data.
insert_point_aliases	Reinserts new aliases to the point alias table 262 for any type passed
	other than unchangeable commercial mapping data.
insert_new_point	Creates a new point with reference to an existing point.
insert_point_from_intersection	Creates new point(s) on a roadway from an intersection.
insert_point_from_another_road	Creates a new point from another roadway.
update_point	Updates the status description and point type description of an existing
	non-commercial mapping data type point.
change_roadway_status	Updates the status description of an existing roadway.
change_point_on_road_status	Updates the status description of an existing point on a roadway.
delete_point	Deletes a point identification from a given roadway, as long as it is not
	an original NavTech point, and has not yet been referenced by any
	application.
insert_point_visibility_codes	Returns a list of visibility type codes for a point and roadway.
calculate_geoloc	Returns a list of direction values.
update_start_end_point_on_road	Updates the start and the end point for a given roadway_id.
assign_points_sequence	Assigns a point to a roadway.
insert_new_point_calc_geoloc	Creates a new point in reference to an existing point. This procedure
	calculates a GeoLoc based on the i_distance_percentage value.

FIG. 11



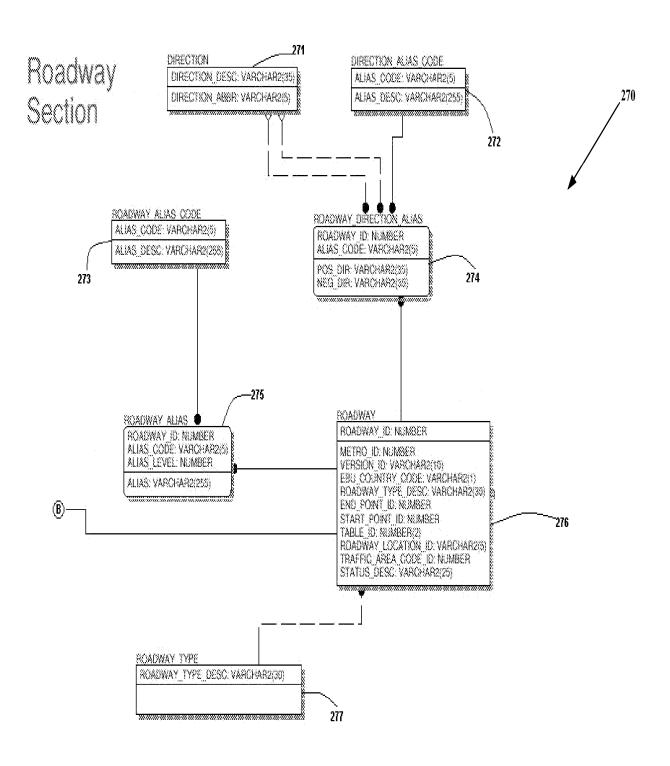


FIG. 13

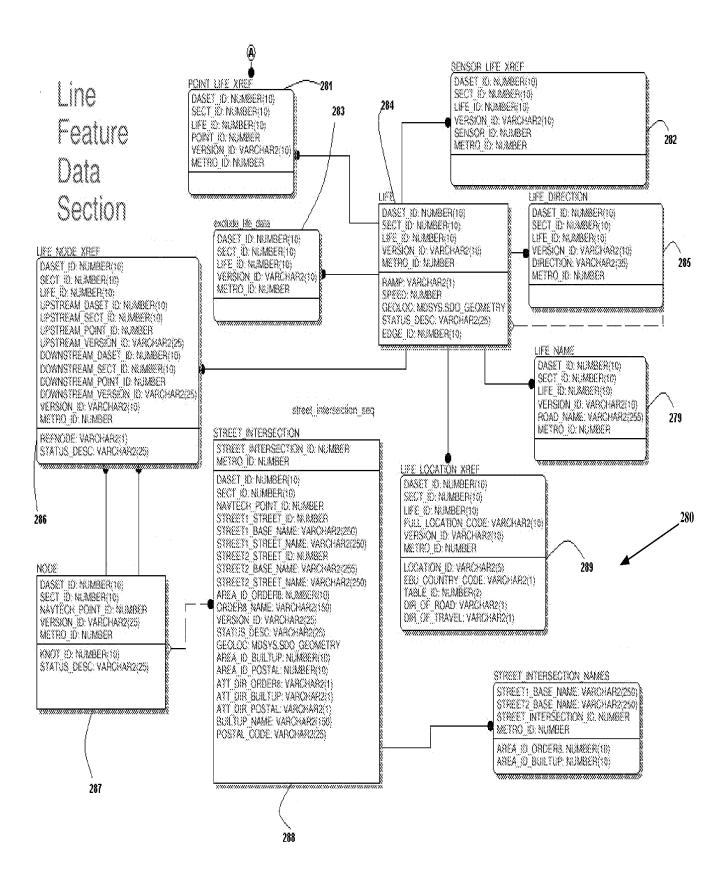
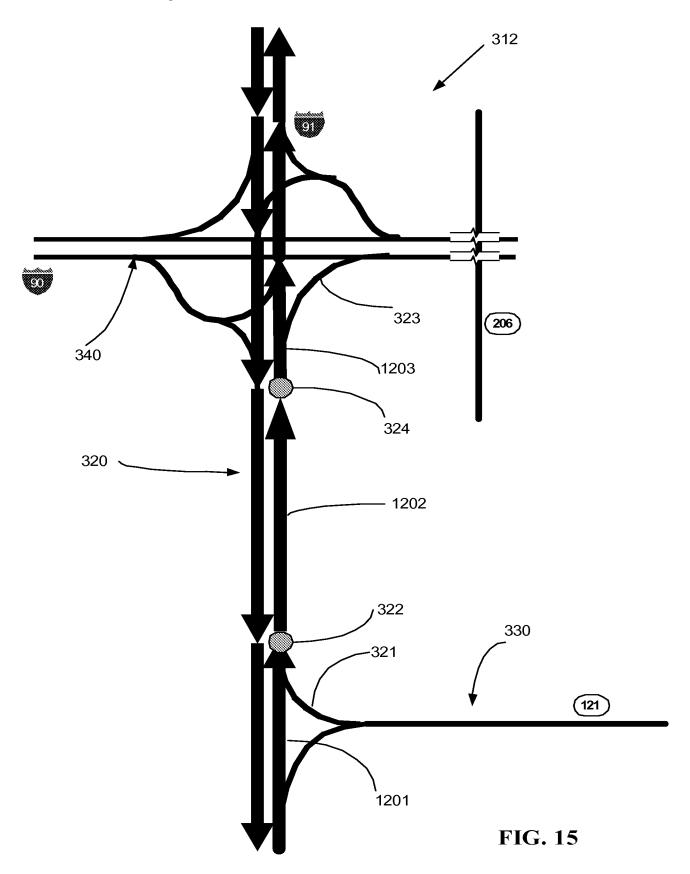
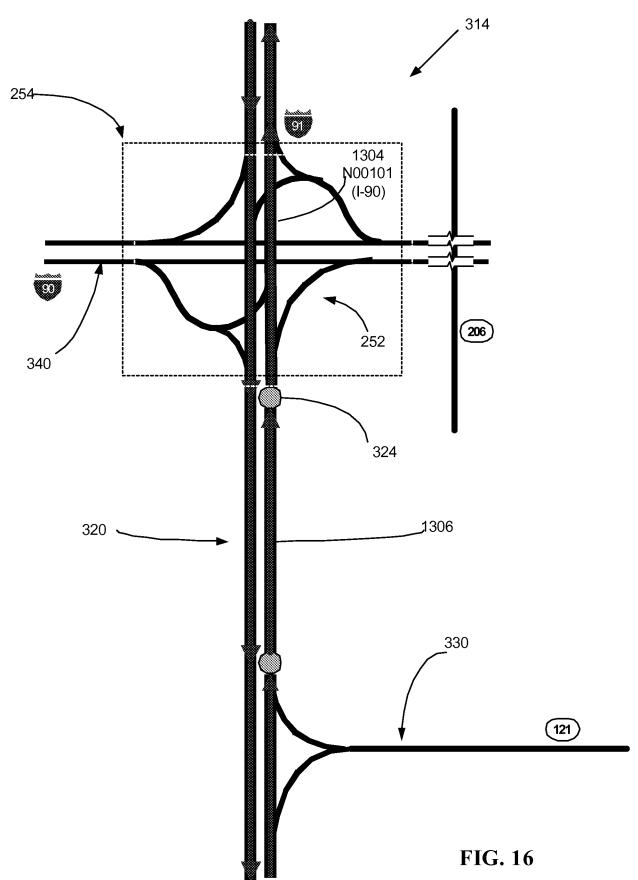


FIG. 14

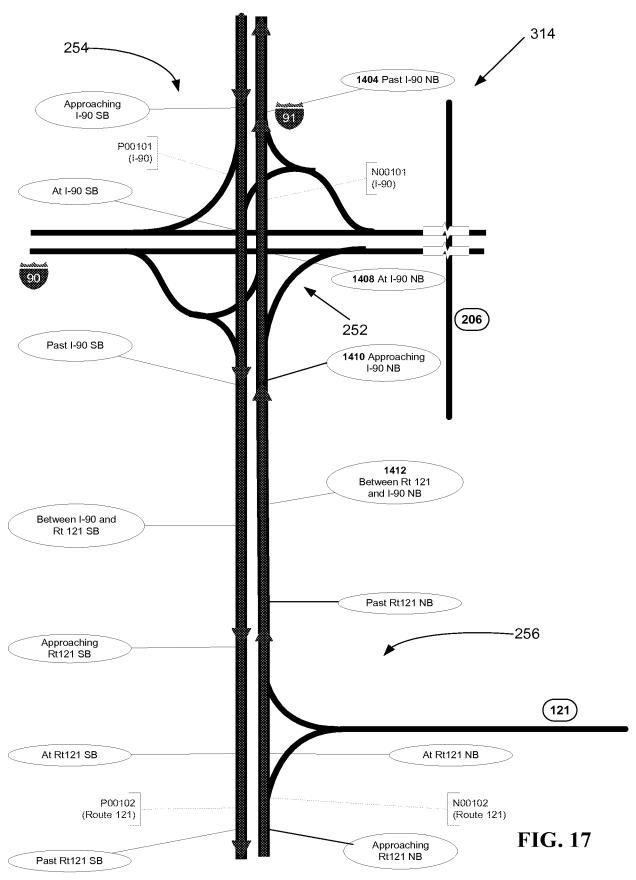
Example of Basic Link Definitions



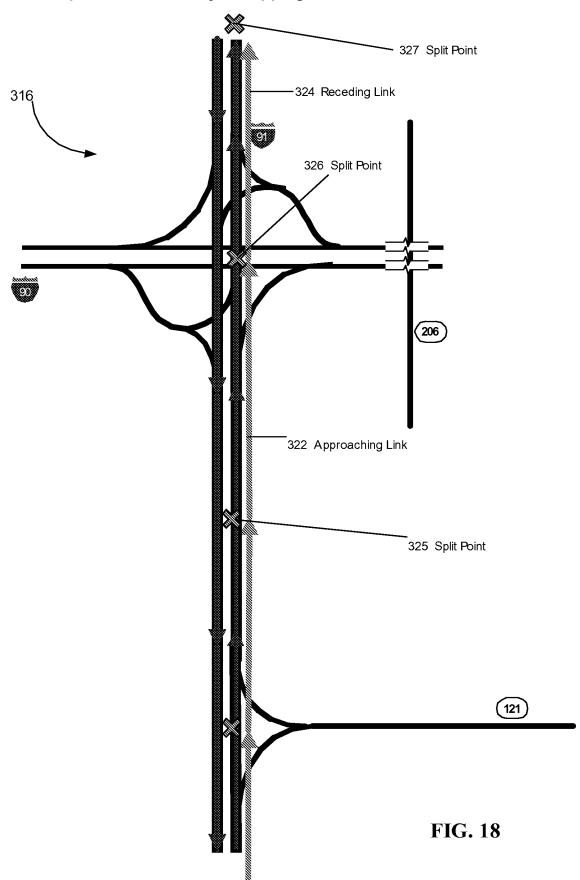
Example of Traffic Link Definitions

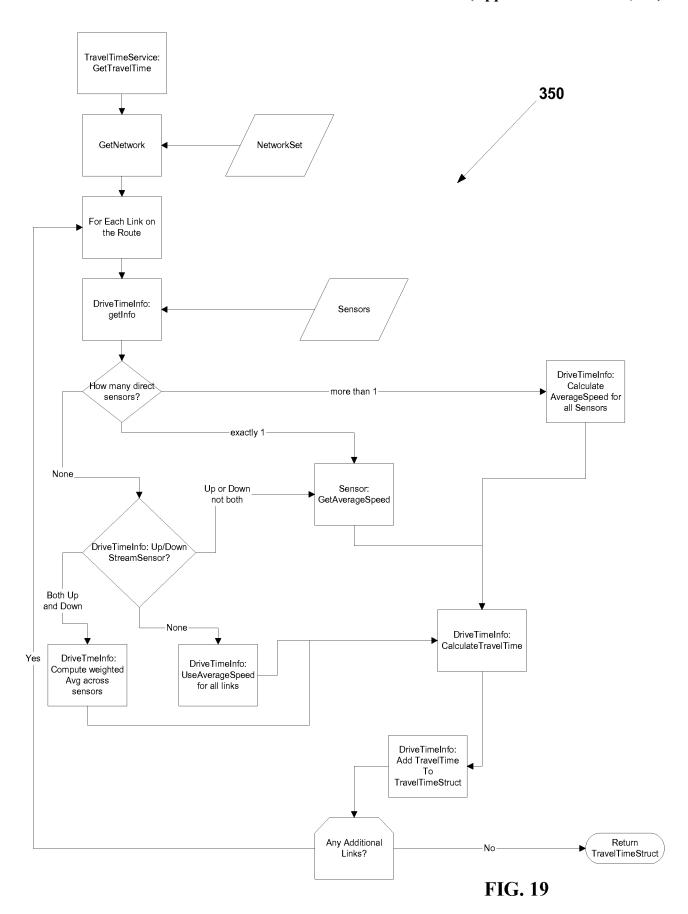


Example of Proximities for Traffic Link Definitions



Example of Graphical Network Layer Mapping from the Traffic Network





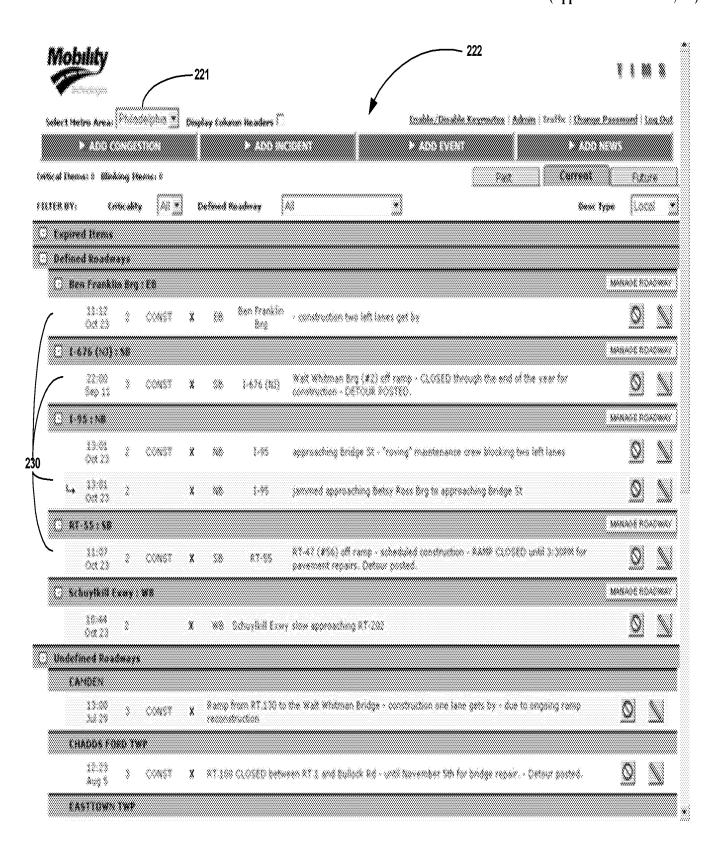


FIG. 20

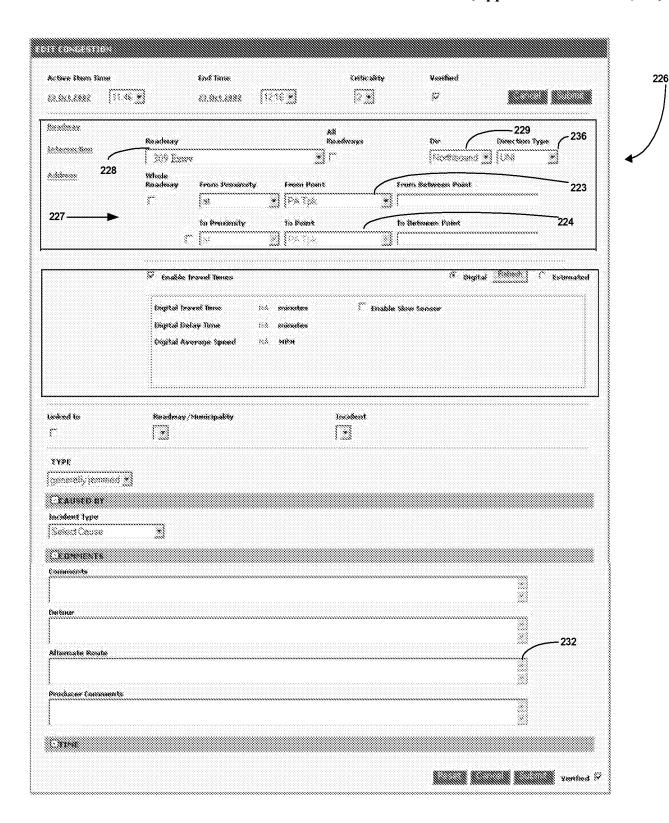


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FIG. 24

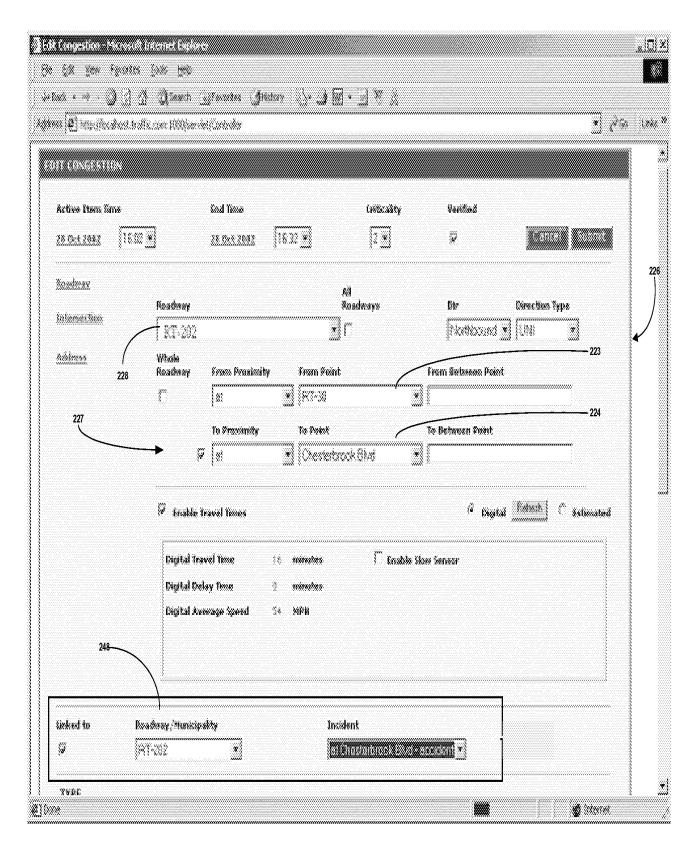


FIG. 25

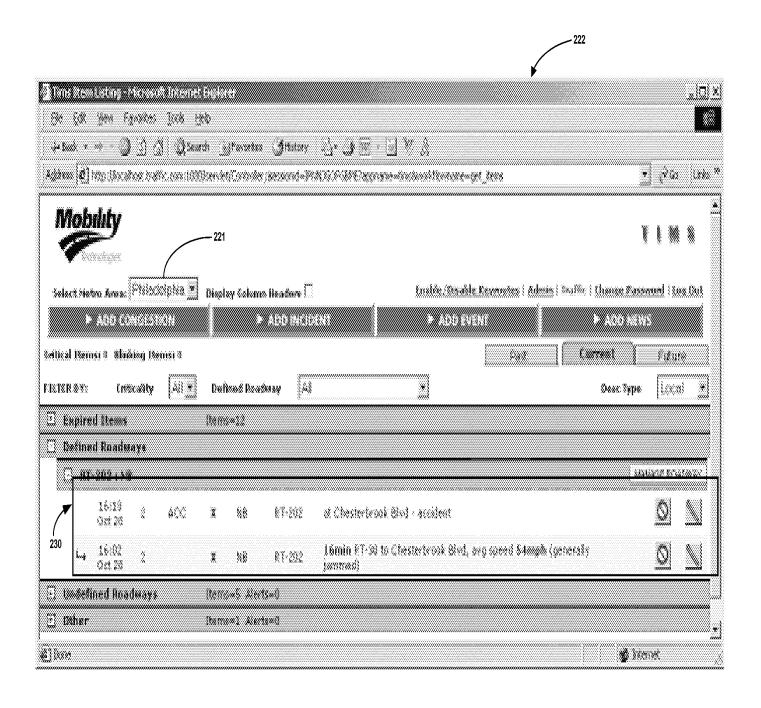
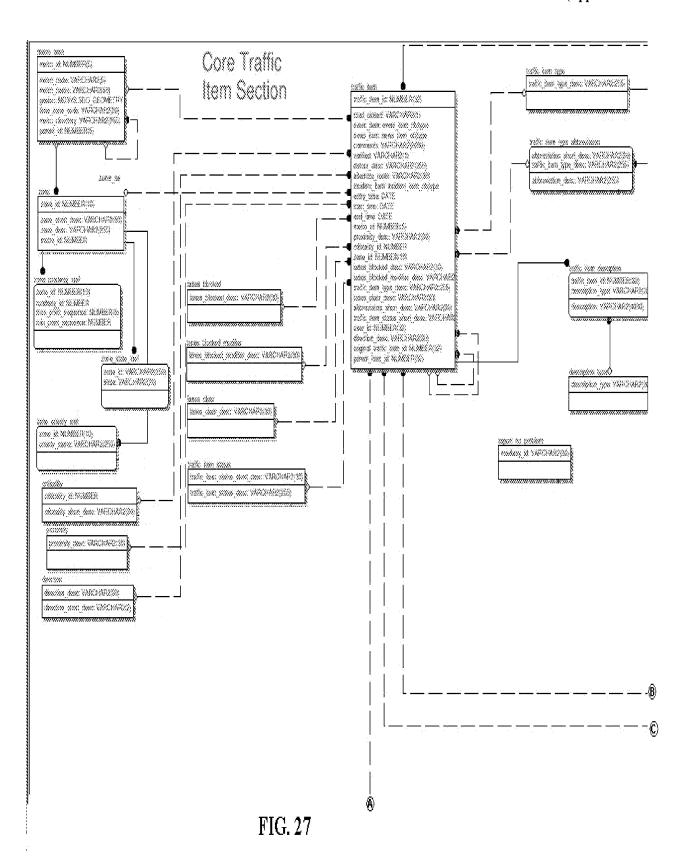


FIG. 26



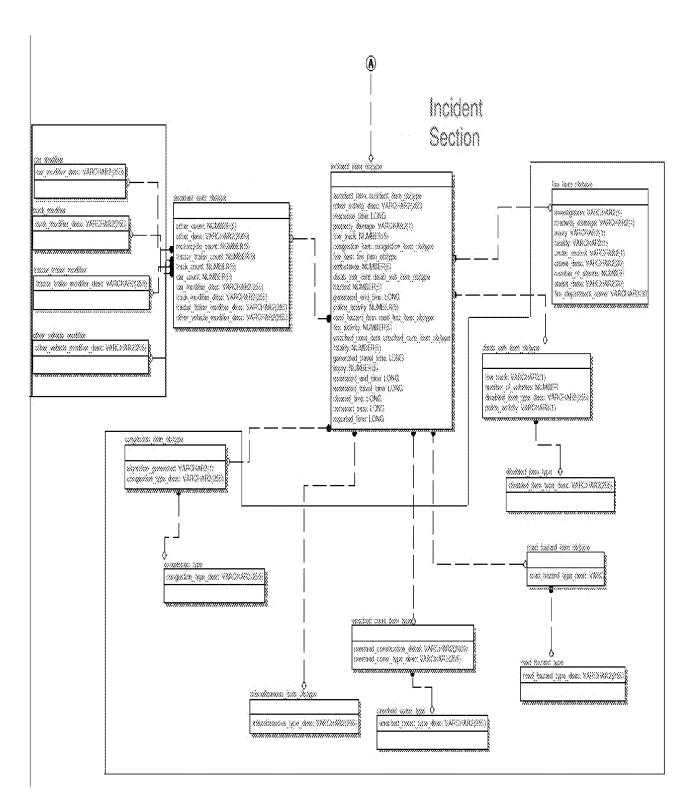
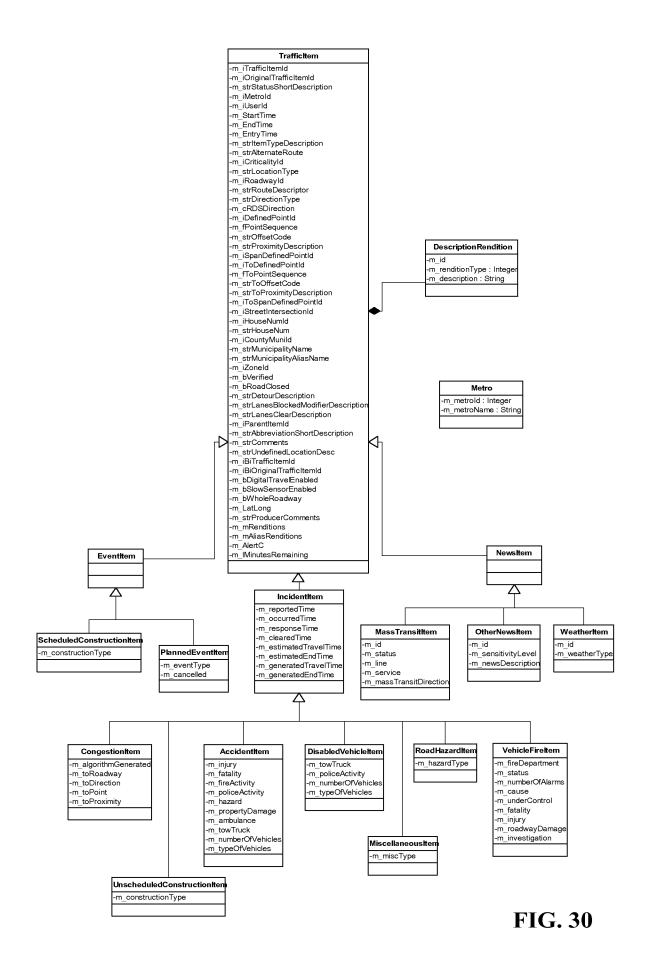


FIG. 28



FIG. 29



```
<?xml version="1.0" encoding="UTF-8"?>
 <definedroadways>
 <road>
  <road name>RT-202</road name>
  <road id>98</road id>
  <road ebucountrycode>1</road ebucountrycode>
  <road tableid>3</road tableid>
  <road_locid>00103</road_locid>
  <directions>
   <direction>
    <direction type>+</direction type>
    <direction name>Northbound</direction name>
   </direction>
   <direction>
    <direction type>-</direction type>
    <direction name>Southbound</direction name>
   </direction>
  </directions>
  <points>
   <point>
    <point_name>RT-100 Spur</point_name>
    <point id>396</point id>
    <point locid>04466</point locid>
    <point sequence>2.0</point sequence>
    <mids>
     <mid>
      <mid_type>+</mid_type>
      <mid id>397</mid id>
      <mid locid>04467</mid locid>
      <mid name>Boot Rd</mid name>
     </mid>
     <mid>
      <mid type>-</mid type>
      <mid id>395</mid id>
      <mid locid>04465</mid locid>
      <mid name>RT-322</mid name>
     </mid>
    </mids>
   </point>
  </points>
 </road>
</definedroadways>
```

Tables Relating XML Nodes and Corresponding Database Tables and Database Columns

ROADWAY NODES

XML Node	Database Table	Database Column
road_name 1	ROADWAY_ALIAS 275	ALIAS 275
road id 1	ROADWAY 276	ROADWAY ID 276

DIRECTION NODES

XML Node	Database Table	Database Column
direction_name 2	ROADWAY_DIRECTION_ALIAS	POS_DIR 274
	274	NEG_DIR 274

POINT NODES

XML Node	Database Table	Database Column
point_name 3	POINT_ALIAS 262	ALIAS 262
point_id 3	POINT 266	POINT_ID 266
point_sequence 3	ROADWAY_POINT_XREF 269	POINT_SEQUENCE 269

MID NODES

XML Node	Database Table	Database Column
mid_type 4	OFFSET 268	RDS_DIRECTION 268
mid id 4	OFFSET 268	RELATED POINT ID
_		268
mid name 4	POINT ALIAS 262	ALIAS 262

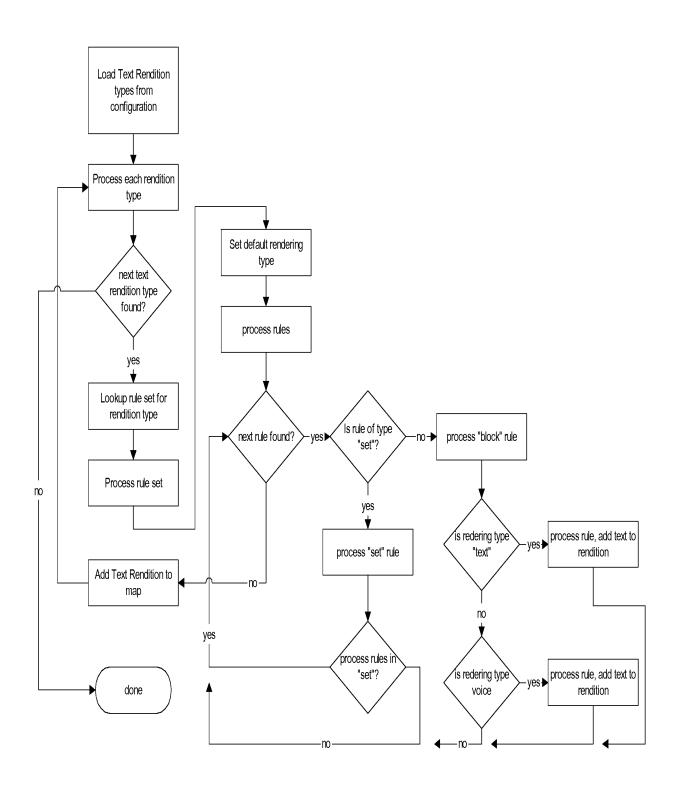


FIG. 33

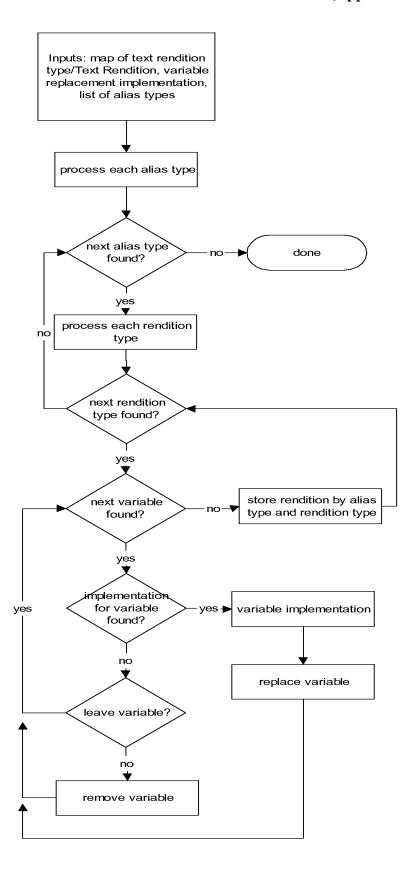
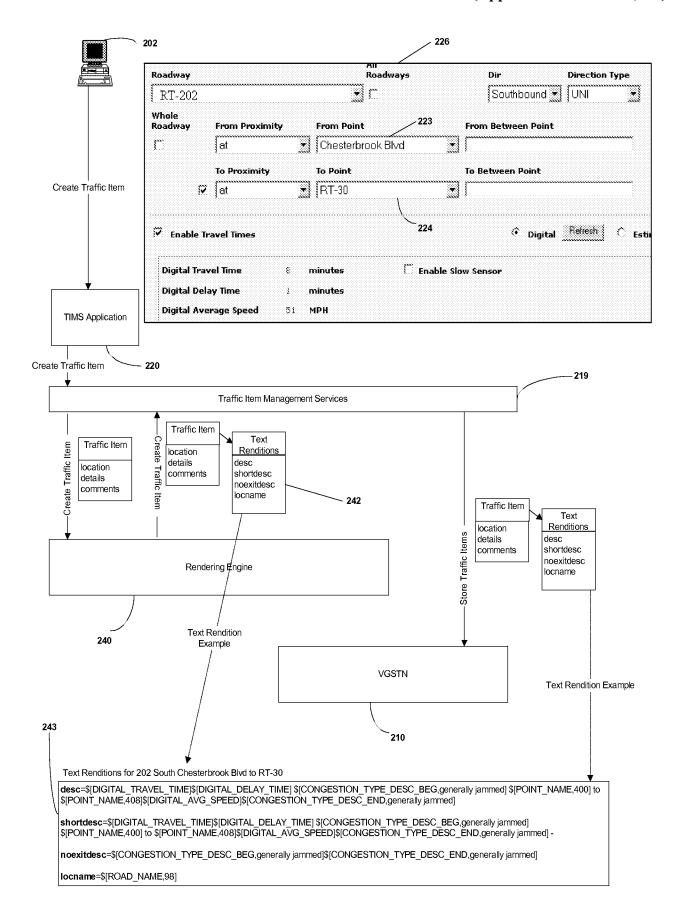


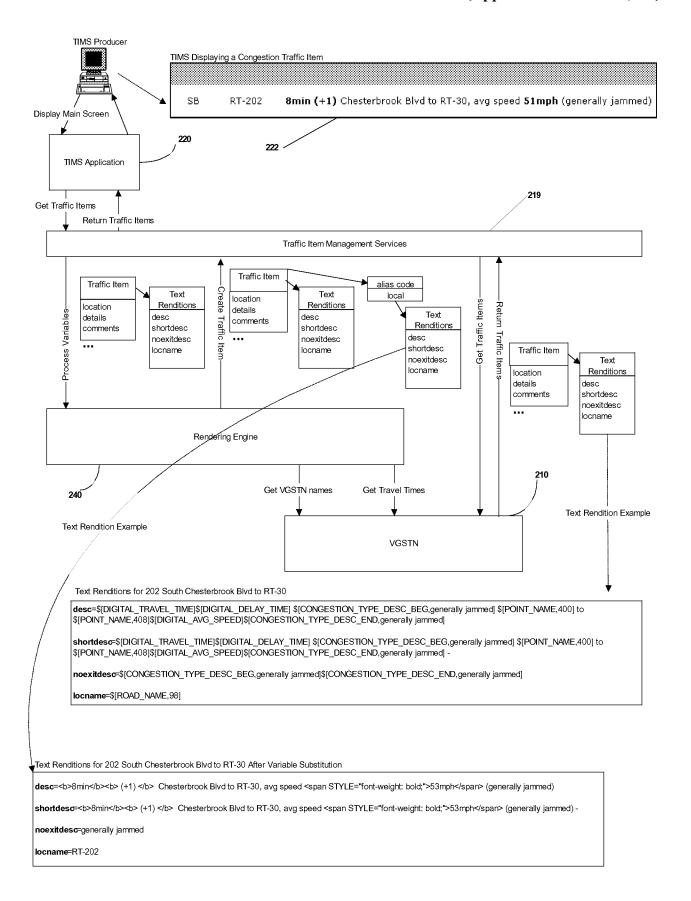
FIG. 34

```
<TextRenditions>
 <TextRendition name="locname" aliastype="LOCAL" type="text">
  <TextBlockSetGroup key="locname" />
 </TextRendition>
 <TextBlockGroup name="locname">
  <TextBlockSetConditionalEquals key="LOCATION_TYPE" value="defined">
   <TextBlockConstant constant="$[ROAD_NAME," type="text" />
   <TextBlockMapValue key="ROADWAY_ID" type="text" />
   <TextBlockGetRoadName roadidkey="ROADWAY ID" metroidkey="METRO ID" type="voice"/>
   <TextBlockConstant constant="]" type="text" />
  </TextBlockSetConditionalEquals>
  <TextBlockSetConditionalEquals key="LOCATION TYPE" value="undefined">
   <TextBlockSetGroup key="municipality_location" />
  </TextBlockSetConditionalEquals>
  <TextBlockSetConditionalEquals key="LOCATION_TYPE" value="municipality">
   <TextBlockSetGroup key="municipality_location" />
  </TextBlockSetConditionalEquals>
  <TextBlockSetConditionalEquals key="LOCATION TYPE" value="metro">
   <!-- No location for metro -->
  </TextBlockSetConditionalEquals>
 </TextBlockGroup>
 <TextBlockGroup name="municipality location">
  <TextBlockSetConditionalNull key="MUNI_ALIAS">
   <TextBlockMapValue key="MUNI_NAME" />
  </TextBlockSetConditionalNull>
  <TextBlockSetConditionalNotNull key="MUNI ALIAS">
   <TextBlockMapValue key="MUNI_ALIAS" />
  </TextBlockSetConditionalNotNull>
 </TextBlockGroup>
```

FIG. 35

</TextRenditions>





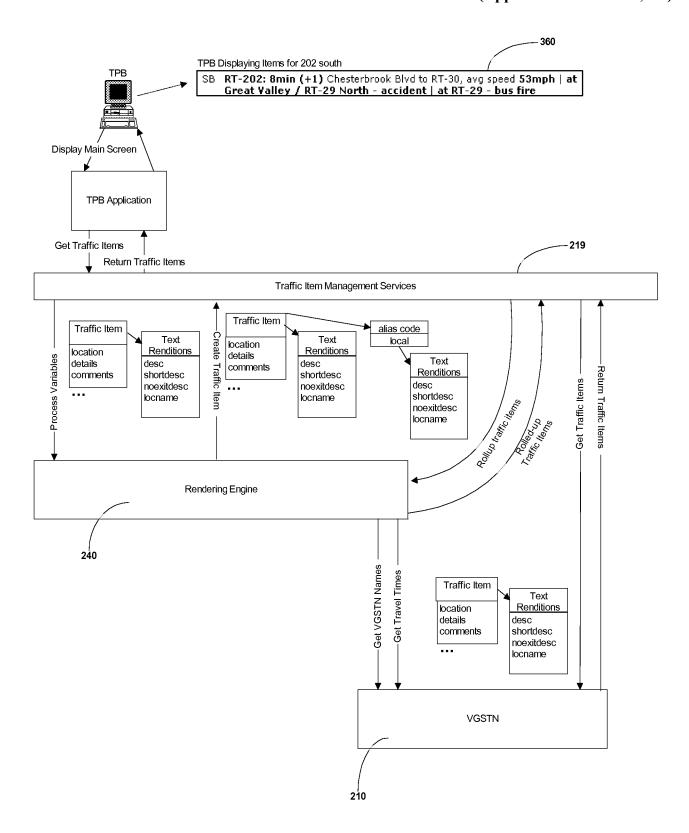


FIG. 38

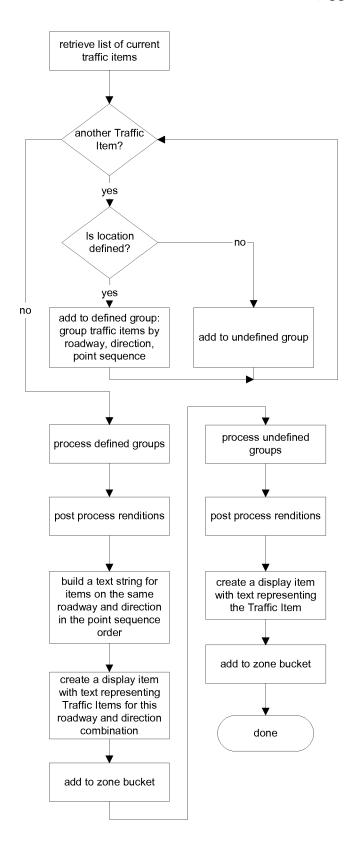


FIG. 39

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)****	12:19	3	CONST			REDYFFRIN TWP5: AT.30 b ad reconstruction	etween Berwyn Pao	li Rd and Midland Ave - unguing construction one lane gets by - in bi	<i>(th</i>
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7	,	11:08		CONST	88		·		CLOSED until 3:30PM for pavement repairs. Distour posted.	
))	23:17	3	CONST	58		•		to the end of the year for construction - DETOUR POSTED.	1000 1000 1000 1000 1000 1000
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8	·*··	17:30	www	CONST		CAMDEN: Page	s from RT.130 to the Wait Wi	etman Bridox - con	struction one lane gets by - due to ongoing ramp reconstruction	
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8	//www	* 13:16	**************************************	FY]		: 86974 8.2 Ma	rrus Raak/Wilminatan Law h	uestio bolmoori 200	s St. and Marsus Hook due to Police Activity.	
		13:05		M					nger until December for remp construction.	
	in.	15:00		FYI					Cottman Av - only three lanes available until late October	
ý	*******			. 55		e x	serie www.ww.cowe.com	resource security of the week	anomoro oz. Zask oszak dasto is spiłog pota 100 Zak Ardensy	
8	486	e Trans	n e							٠

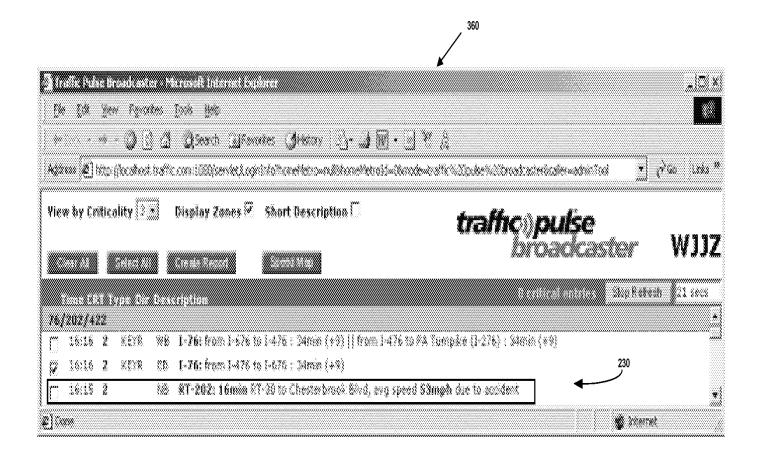


FIG. 41

«interface»

RawTrafficItemInterface

+findItemsPresentActiveByMetroId(in metroId: Integer): Collection

+findltemsPresentActiveByMetrold(in metrold: Integer, in descriptionType: String): Collection

+findItemByIdAndDescType(in metrold : Integer, in trafficItemId : Integer) : Item

+findItemByIdAndDescType(in metroid : Integer, in trafficItemId : Integer, in descriptionType : String) : Item

+findltemsPresentDefinedRoadways(in metrold : Integer, in roadwayld : Integer, in pointld : Integer, in toPointld : Integer, in itemTypeDescription : String, in criticalityld : Integer, in descriptionType : String) : Collectio

+findConcreteItemsFromItems(in items : Collection) : Collection

+findCongestionIncidentByIdAndDescType(in trafficItemId: Integer, in descriptionType: String): CongestionIncident

«interface»

ConsumerTrafficItemInterface

+findItemsByMetroIdAllDescs(in metroId: Integer, in impl: String, in aliasType: String): Collection

+findItemsByMetroIdAllDescs(in metroId: Integer, in impl: String): Collection

+findltemsPresentActiveByMetrold(in metrold: Integer, in descriptionType: String, in impl: String, in aliasType: String): Collection

+findItemsPresentActiveByMetroId(in metroId : Integer, in descriptionType : String, in impl : String) : Collection

+findItemByIdAndDescType(in trafficItemId: Integer, in descriptionType: String, in impl: String, in aliasType: String): Item

+findIncidentItemByIdAndDescType(in trafficItemId: Integer, in descriptionType: String, in impl: String, in aliasType: String): IncidentItem

+findCongestionItemsAll(): CongestionIncident

+findCongestionIncidentByldAndDescType(): CongestionIncident

+findltemsPresentDefinedRoadways(in metrold: Integer, in roadwayld: Integer, in pointld: Integer, in toPointld: Integer, in itemTypeDescription: String, in criticalityld: Integer, in descriptionType: String, in impl: String, in aliasType: String): Collection

«interface»

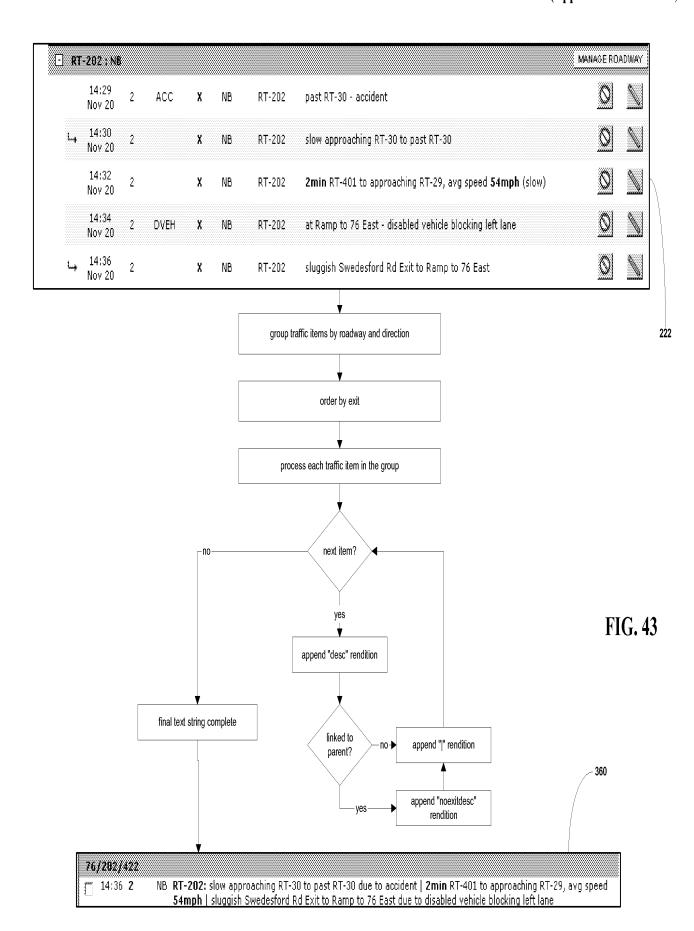
AnnouncerItemRollupInterface

+getItems(in metrold : Integer, in impl : String) : Collection

«interface»

AnnouncerZoneViewInterface

+findAnnouncerZoneViewByUserld(in userld: Integer, in roleld: Integer, in metrold: Integer): Collection



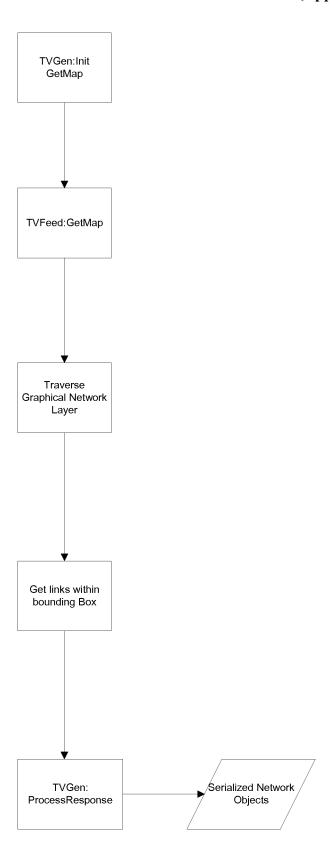
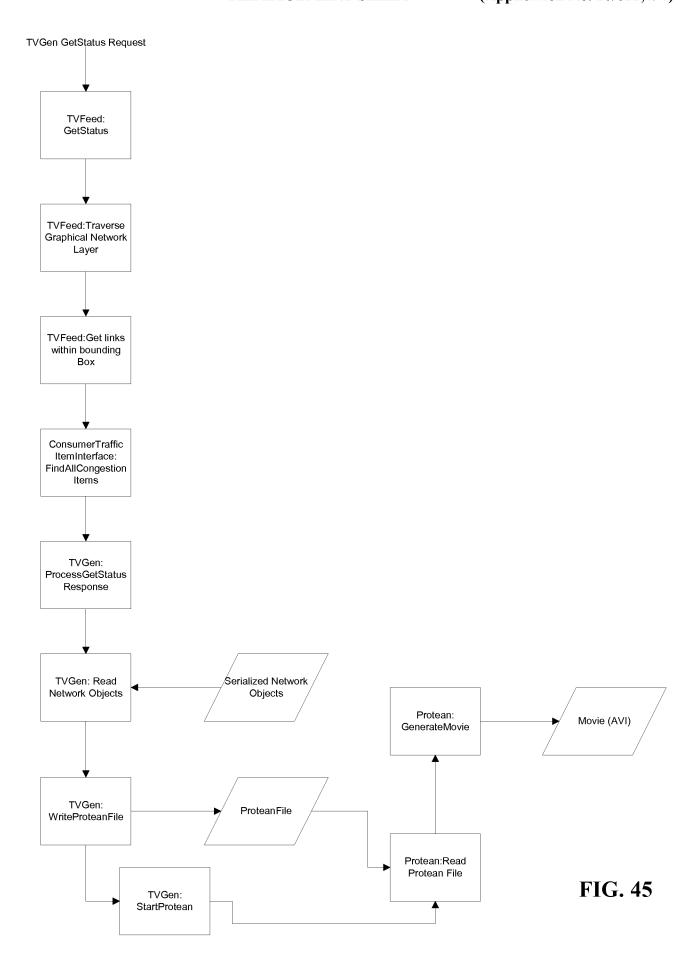


FIG. 44



<?xml version="1.0" encoding="UTF-8"?>
<GRAPHICAL_NETWORK>

<TIMESTAMP VALUE="20-Nov-2002-06:11:26 EST"/> STIMICS FAMILY AND CONTROL OF THE PROPERTY AND CONTROL

<DIRECTION VALUE="W":

SEGMENT 10="GraphicalLink102N04949| down! VisibleCompoundLink(102-04948; &g::102N04942) jud"> <RAW_DESCRIPTION><! [CDATA[91| 1| 2790121<M>91| 1| 2790091 > GraphicalLink102N04949| down| VisibleCompoundLink(102-04948 >102N04942)|up > 91|1|2790091<M>>1|1|2784216[versionid=Q42001, tableid=2, rdstmc=[102N04949, 102-04948, 102N04948, 102-04948, 102N04948, 102N04947, 102N04947, 102N04946, 102N04946, 102N04945, 102N04945], ebucc=1, pid=[1949, 1948, 1947, 1946, 102N04945], 102N0495], 102N0495], 102N0495], 102N0495], 102N0495], 102N0495], 102N0495], 102N0495], 102N0495], 1

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GEOLOCATION LATITUDE="28.53967" LONGITUDE="81.31828")
GEOLOCATION LATITUDE="28.53968" LONGITUDE="81.3294")
GEOLOCATION LATITUDE="28.5397" LONGITUDE="81.3294")
GEOLOCATION LATITUDE="28.53967" LONGITUDE="81.32987")
GEOLOCATION LATITUDE="28.53967" LONGITUDE="81.3296")
GEOLOCATION LATITUDE="28.53967" LONGITUDE="81.32541")
GEOLOCATION LATITUDE="28.53857" LONGITUDE="81.32541")
GEOLOCATION LATITUDE="28.53857" LONGITUDE="81.32541")
GEOLOCATION LATITUDE="28.53857" LONGITUDE="81.32587")
GEOLOCATION LATITUDE="28.53857" LONGITUDE="81.32587")
GEOLOCATION LATITUDE="28.53857" LONGITUDE="81.33596")
GEOLOCATION LATITUDE="28.53845" LONGITUDE="81.33125")
GEOLOCATION LATITUDE="28.53845" LONGITUDE="81.33496")
GEOLOCATION LATITUDE="28.53845" LONGITUDE="81.33496")
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     </DIRECTION>
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GraphicalLink:102N04802|down|VisibleCompoundLink:(102-04801-->102N04798)|up
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roadname=I-4}]]></RAW DESCRIPTION>
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           <CONGESTION STATUS><![CDATA[red]]></CONGESTION STATUS>
         </SEGMENT>
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EXIT 4, rdsdir=[-, N, -, N, -, N], rdstmc=102-04801, direction=W, roadname=I-4}]]></RAW_DESCRIPTION>
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           <LOCATION><![CDATA[SOUTH ST/EXIT 39]]></LOCATION>
           <CONGESTION STATUS><![CDATA[red]]></CONGESTION STATUS>
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           <CONGESTION STATUS><![CDATA[red]]></CONGESTION STATUS>
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           <CONGESTION STATUS><![CDATA[red]]></CONGESTION STATUS>
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</GRAPHICAL NETWORK STATUS>

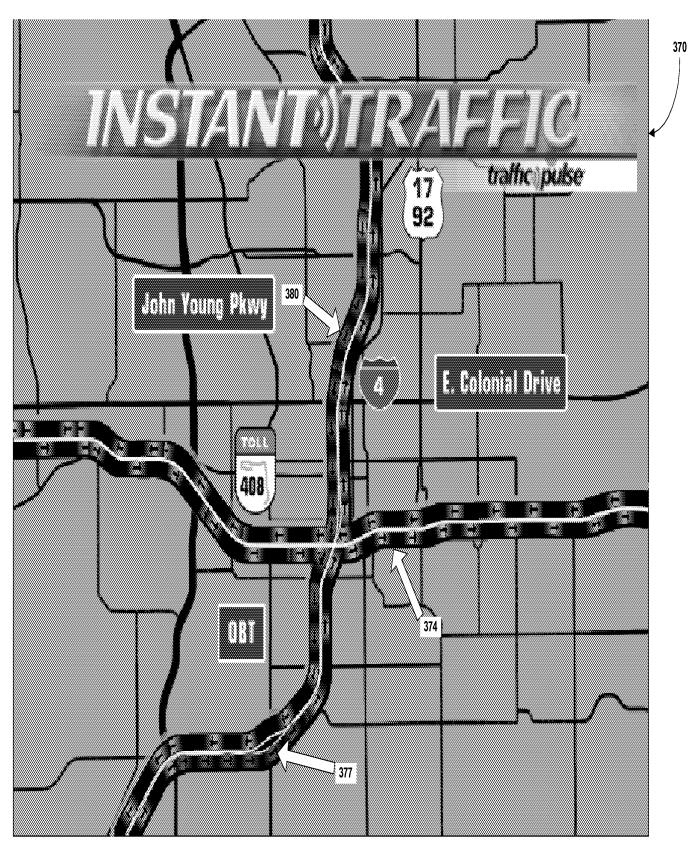


FIG. 48

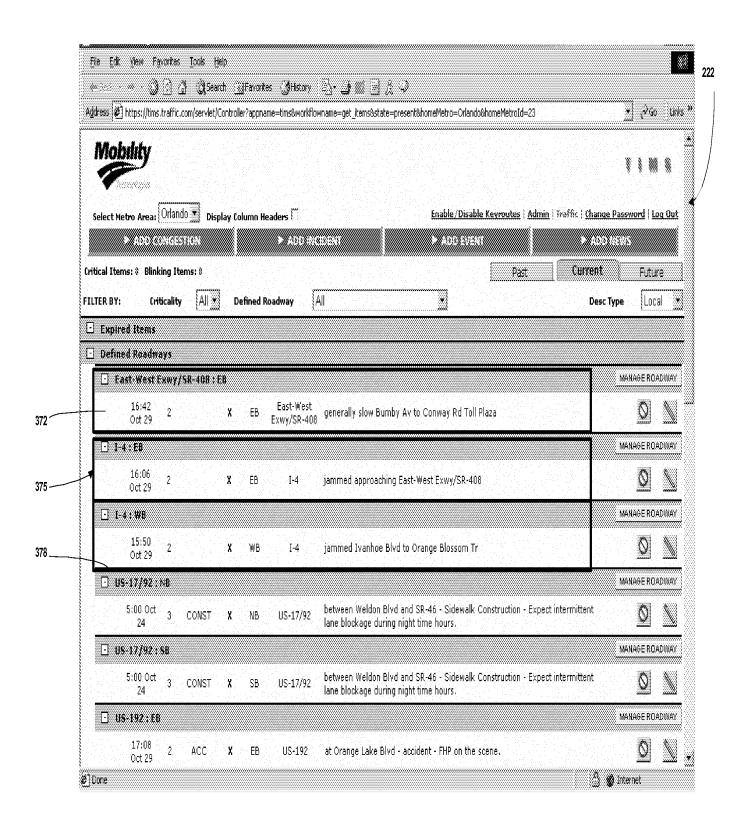


FIG. 49

 $\mathbf{TIME} = \mathbf{T_0}$

Roadway 1000	Sensor 1001					
Lane	Direction	Speed	Volume	Long Volume	Density	Smoothed Speed (per Dir)
1	NorthBound	57	40	6	13	
2	NorthBound	53	35	3	17	
3	NorthBound	55	38	7	10	55
4	SouthBound	60	25	7	9	
5	SouthBound	63	36	8	7	
6	SouthBound	61	30	4	10	61

Roadway 1000	Sensor 1002					
Lane	Direction	Speed	Volume	Long Volume	Density	Smoothed Speed (per Dir)
1	NorthBound	56	38	5	14	
2	NorthBound	55	40	4	16	
3	NorthBound	52	41	5	11	54
4	SouthBound	62	27	7	10	
5	SouthBound	60	34	8	8	
6	SouthBound	59	32	4	12	60

Roadway 1000	Sensor 1003					
Lane	Direction	Speed	Volume	Long Volume	Density	Smoothed Speed (per Dir)
1	NorthBound	55	42	7	15	-
2	NorthBound	50	37	2	12	
3	NorthBound	52	35	5	14	52
4	SouthBound	59	22	3	10	
5	SouthBound	61	32	4	6	
6	SouthBound	63	34	5	9	61

Roadway 1000	Sensor 1004					
Lane	Direction	Speed	Volume	Long Volume	Density	Smoothed Speed (per Dir)
1	NorthBound	51	36	3	16	
2	NorthBound	55	40	5	13	
3	NorthBound	56	39	4	12	54
4	SouthBound	62	22	3	8	
5	SouthBound	59	30	6	11	
6	SouthBound	65	29	5	9	62

Roadway 1000	Sensor 1005					
Lane	Direction	Speed	Volume	Long Volume	Density	Smoothed Speed (per Dir)
1	NorthBound	55	37	5	12	
2	NorthBound	56	39	3	16	
3	NorthBound	51	40	7	10	54
4	SouthBound	62	25	7	9	
5	SouthBound	58	31	8	8	
6	SouthBound	59	32	4	10	60

 $\mathbf{TIME} = \mathbf{T_0}$

Roadway 2000	Sensor 2010					
Lane	Direction	Speed	Volume	Long Volume	Density	Smoothed Speed (per Dir)
1	NorthBound	53	35	5	15	•
2	NorthBound	50	39	3	12	
3	NorthBound	56	38	4	16	53
4	SouthBound	58	21	5	9	
5	SouthBound	61	28	6	10	
6	SouthBound	62	30	5	7	60

Roadway 2000	Sensor 2011					
Lane	Direction	Speed	Volume	Long Volume	Density	Smoothed Speed (per Dir)
1	NorthBound	55	33	3	14	
2	NorthBound	58	36	5	15	
3	NorthBound	52	40	6	12	55
4	SouthBound	59	25	6	10	
5	SouthBound	58	29	8	8	
6	SouthBound	61	30	5	9	59

 $TIME = T_0$

Link	Avg Speed (MPH)	Length	Travel Time (min)	Comments
100	55.0	0.7	0.7636	
101	54.3	0.34	0.3755	
102	53.2	0.73	0.8238	assumed equal weighting to each sensor
103	54.0	0.51	0.5667	
104	54.0	0.24	0.2667	
105	54.0	0.14	0.1556	
110	55.0	8.0	0.8727	
111	55.0	0.34	0.3709	
112	55.0	0.73	0.7964	
113	55.0	0.47	0.5127	
114	55.0	0.25	0.2727	
115	55.0	0.16	0.1745	
201	53.0	2.19	2.4792	
				0.416 miles to sensor 2011
202	53.7	0.08	0.0893	0.237 miles to sensor 2010
203	55.0	0.42	0.4582	assume negligible effect from sensor 2010
204	55.0	0.81	0.8836	
205	55.0	0.59	0.6436	
210	55.0	2.27	2.4764	
				0.416 miles to sensor 2011
211	55.0	0.08	0.0873	0.237 miles to sensor 2010
212	55.0	0.34	0.3709	assume negligible effect from sensor 2010
213	55.0	0.73	0.7964	
214	55.0	0.65	0.7091	

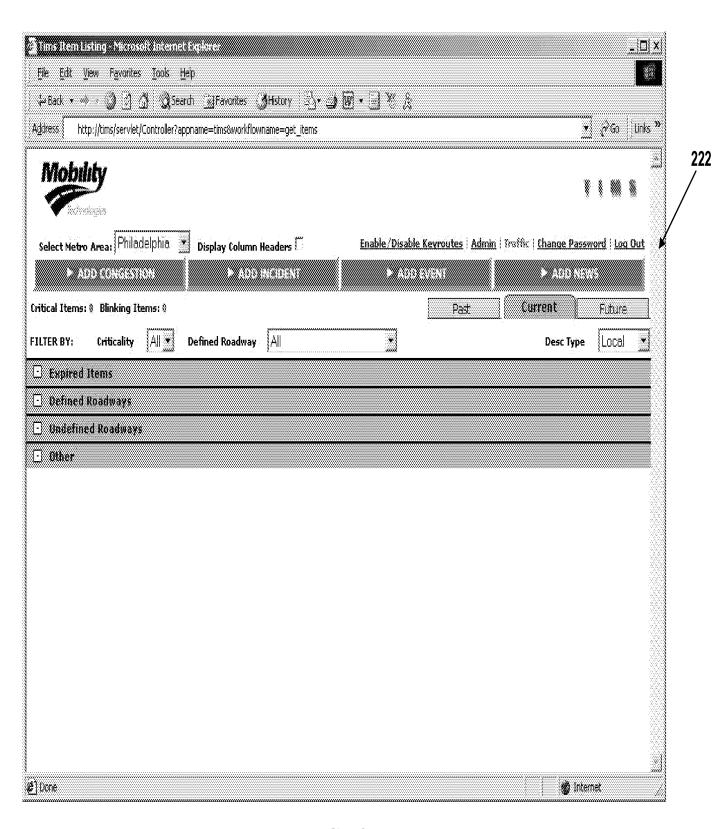
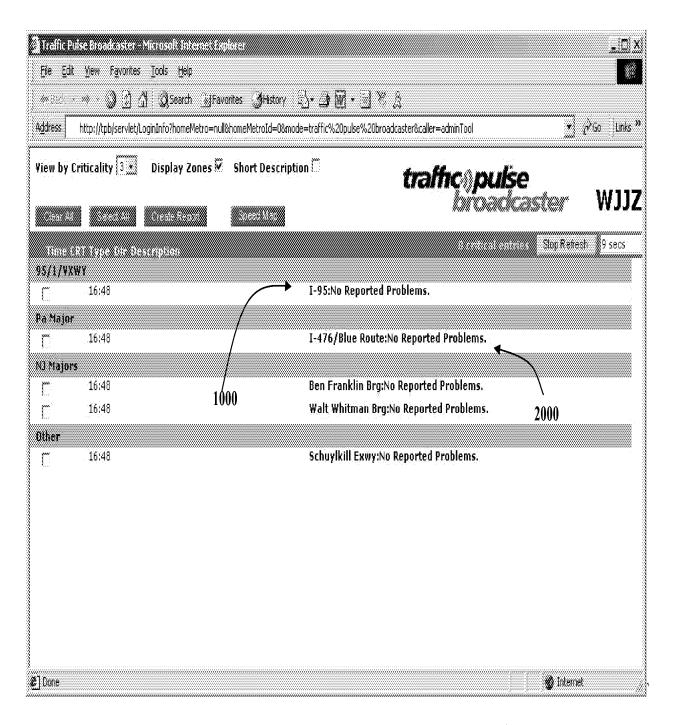


FIG. 53



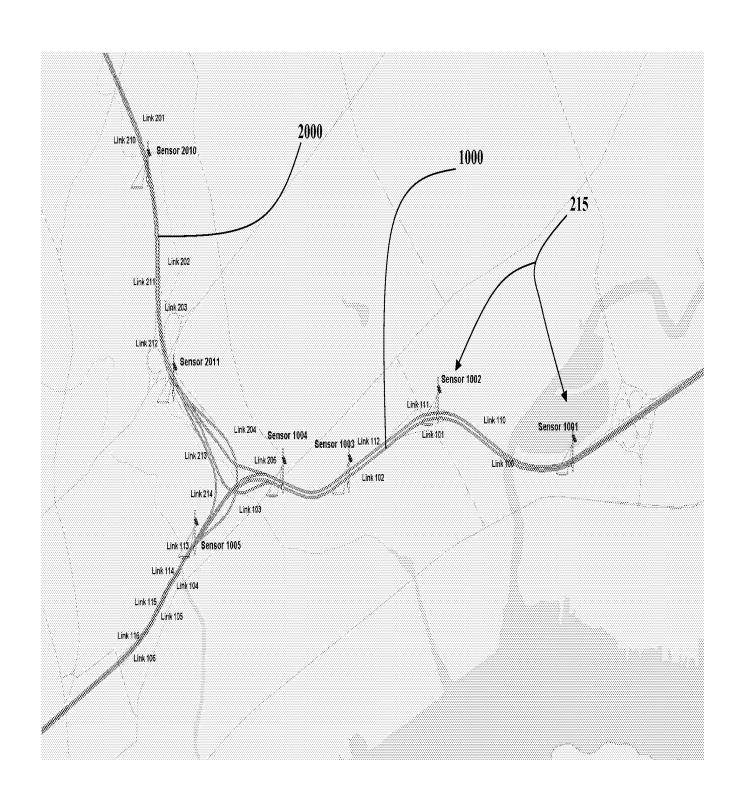


FIG. 55

 $TIME = T_1$

Roadway 1000	Sensor 1001]				
Lane	Direction	Speed	Volume	Long Volume	Density	Smoothed Speed (per Dir)
1	NorthBound	57	40	6	13	
2	NorthBound	53	35	3	17	
3	NorthBound	55	38	7	10	55
4	SouthBound	60	25	7	9	
5	SouthBound	63	36	8	7	
6	SouthBound	61	30	4	10	61

Roadway 1000	Sensor 1002					
Lane	Direction	Speed	Volume	Long Volume	Density	Smoothed Speed (per Dir)
1	NorthBound	56	25	5	9	
2	NorthBound	55	28	4	10	
3	NorthBound	52	29	5	11	54
4	SouthBound	50	27	7	15	
5	SouthBound	49	34	8	16	
6	SouthBound	48	32	4	12	49

Roadway 1000	Sensor 1003]				
Lane	Direction	Speed	Volume	Long Volume	Density	Smoothed Speed (per Dir)
1	NorthBound	19	25	7	28	
2	NorthBound	23	29	2	31	
3	NorthBound	21	28	5	33	21
4	SouthBound	59	22	3	10	
5	SouthBound	61	32	4	6	
6	SouthBound	63	34	5	9	61

Roadway 1000	Sensor 1004]				
Lane	Direction	Speed	Volume	Long Volume	Density	Smoothed Speed (per Dir)
1	NorthBound	51	36	3	16	
2	NorthBound	55	40	5	13	
3	NorthBound	56	39	4	12	54
4	SouthBound	62	22	3	8	
5	SouthBound	59	30	6	11	
6	SouthBound	65	29	5	9	62

Roadway 1000	Sensor 1005					
Lane	Direction	Speed	Volume	Long Volume	Density	Smoothed Speed (per Dir)
1	NorthBound	55	37	5	12	
2	NorthBound	56	39	3	16	
3	NorthBound	51	40	7	10	54
4	SouthBound	62	25	7	9	
5	SouthBound	58	31	8	8	
6	SouthBound	59	32	4	10	60

 $TIME = T_1$

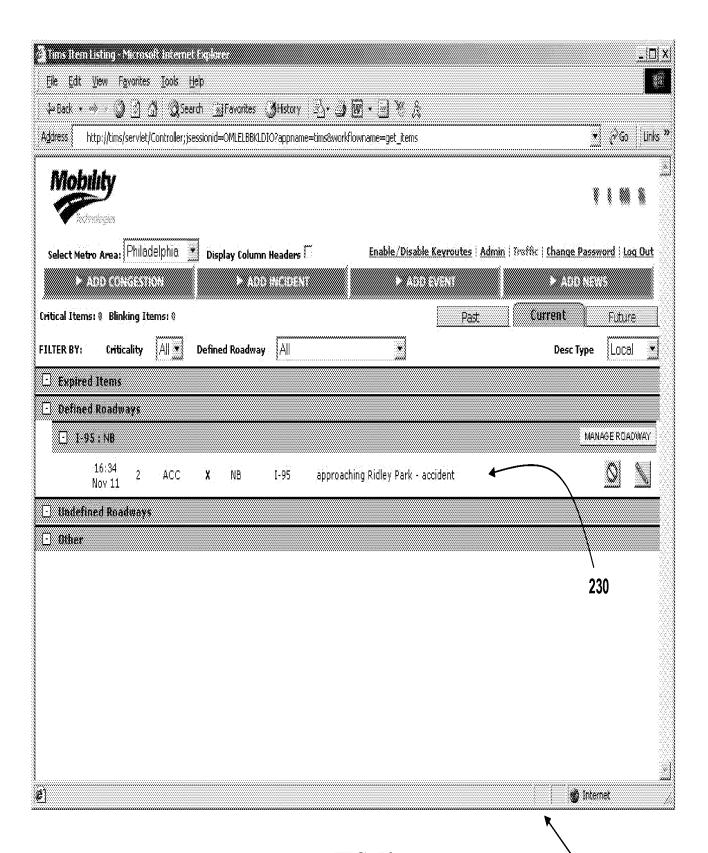
Roadway 2000	Sensor 2010					
Lane	Direction	Speed	Volume	Long Volume	Density	Smoothed Speed (per Dir)
1	NorthBound	55	37	6	16	
2	NorthBound	51	39	2	12	
3	NorthBound	54	34	3	13	53
4	SouthBound	59	21	5	7	
5	SouthBound	60	25	4	9	
6	SouthBound	63	30	3	11	61

Roadway 2000	Sensor 2011					
Lane	Direction	Speed	Volume	Long Volume	Density	Smoothed Speed (per Dir)
1	NorthBound	53	35	6	17	
2	NorthBound	56	31	2	15	
3	NorthBound	53	39	5	13	54
4	SouthBound	62	24	2	8	
5	SouthBound	59	28	7	7	
6	SouthBound	61	31	4	9	61

 $TIME = T_1$

Link	Avg Speed (MPH)	Length	Travel Time (min)	Comments
100	55.0	0.7	0.7636	
101	54.3	0.34	0.3755	
102	37.5	0.73	1.1680	assumed equal weighting to each sensor
103	54.0	0.51	0.5667	
104	54.0	0.24	0.2667	
105	54.0	0.14	0.1556	
110	55.0	0.8	0.8727	
111	49.0	0.34	0.4163	
112	55.0	0.73	0.7964	
113	55.0	0.47	0.5127	
114	55.0	0.25	0.2727	
115	55.0	0.16	0.1745	
201	53.3	2.19	2.4638	
				0.416 miles to sensor 2011
202	53.6	0.08	0.0896	0.237 miles to sensor 2010
203	54.0	0.42	0.4667	assume negligible effect from sensor 2010
204	53.0	0.81	0.9170	
205	54.5	0.59	0.6495	
210	55.0	2.27	2.4764	
				0.416 miles to sensor 2011
211	55.0	0.08	0.0873	0.237 miles to sensor 2010
212	55.0	0.34	0.3709	assume negligible effect from sensor 2010
213	55.0	0.73	0.7964	
214	55.0	0.65	0.7091	

222



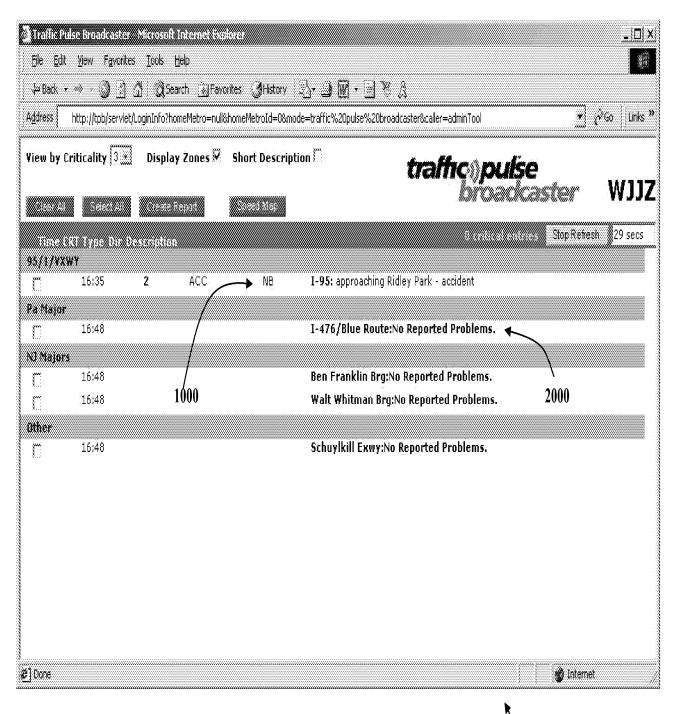


FIG. 60

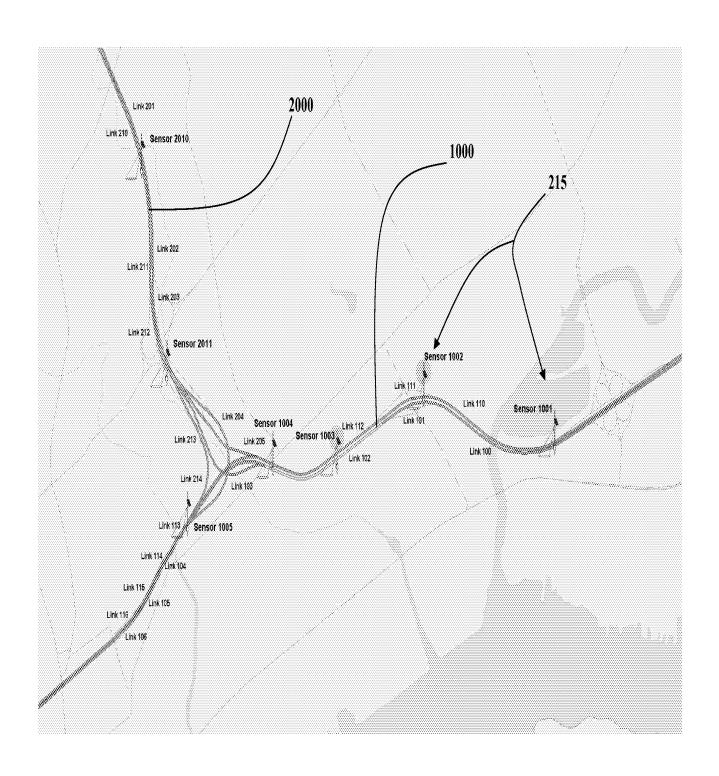


FIG. 61

 $TIME = T_2$

Roadway 1000	Sensor 1001					
Lane	Direction	Speed	Volume	Long Volume	Density	Smoothed Speed (per Dir)
1	NorthBound	65	35	4	8	
2	NorthBound	68	30	3	6	
3	NorthBound	65	32	5	7	66
4	SouthBound	48	32	6	14	
5	SouthBound	53	35	8	9	
6	SouthBound	55	29	5	10	52

Roadway 1000	Sensor 1002					
Lane	Direction	Speed	Volume	Long Volume	Density	Smoothed Speed (per Dir)
1	NorthBound	64	25	3	7	
2	NorthBound	70	22	2	6	
3	NorthBound	68	19	3	4	67
4	SouthBound	20	40	6	30	
5	SouthBound	24	38	5	27	
6	SouthBound	23	32	4	26	22

Roadway 1000	Sensor 1003					
Lane	Direction	Speed	Volume	Long Volume	Density	Smoothed Speed (per Dir)
1	NorthBound	4	8	1	48	-
2	NorthBound	6	11	1	40	
3	NorthBound	7	10	2	37	6
4	SouthBound	65	18	4	8	
5	SouthBound	71	30	5	5	
6	SouthBound	68	29	4	5	68

Roadway 1000	Sensor 1004					
Lane	Direction	Speed	Volume	Long Volume	Density	Smoothed Speed (per Dir)
1	NorthBound	10	20	4	40	
2	NorthBound	14	24	6	37	
3	NorthBound	12	18	4	42	12
4	SouthBound	63	27	4	7	
5	SouthBound	68	30	3	8	
6	SouthBound	64	26	7	6	65

Roadway 1000	Sensor 1005					
Lane	Direction	Speed	Volume	Long Volume	Density	Smoothed Speed (per Dir)
1	NorthBound	37	30	2	22	
2	NorthBound	32	34	3	24	
3	NorthBound	40	32	1	16	36
4	SouthBound	62	25	7	9	
5	SouthBound	58	31	8	8	
6	SouthBound	59	32	4	10	60

 $TIME = T_2$

Roadway 2000	Sensor 2010					
Lane	Direction	Speed	Volume	Long Volume	Density	Smoothed Speed (per Dir)
1	NorthBound	51	35	6	16	•
2	NorthBound	53	41	4	13	
3	NorthBound	54	38	4	18	53
4	SouthBound	45	22	2	5	
5	SouthBound	49	30	1	4	
6	SouthBound	53	28	1	5	49

Roadway 2000	Sensor 2011 Direction	Sensor 2011				
Lane		Speed	Volume	Long Volume	Density	Smoothed Speed (per Dir)
1	NorthBound	56	35	3	17	•
2	NorthBound	52	34	6	15	
3	NorthBound	55	39	3	13	54
4	SouthBound	16	24	0	35	
5	SouthBound	.12	18	2	39	
6	SouthBound	34	35	2	27	21

 $TIME = T_2$

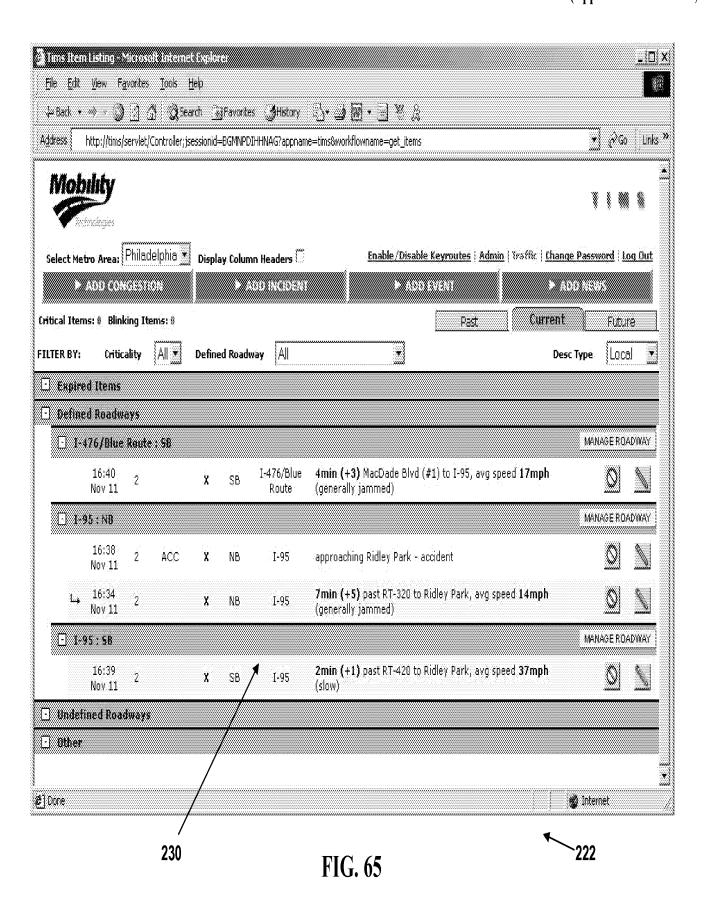
Link	Avg Speed (MPH)	Length	Travel Time (min)	Comments
100	55.0	0.7	0.7636	
101	55.0	0.34	0.3709	
102	8.8	0.73	4.9585	assumed equal weighting to each sensor
103	24.2	0.51	1.2662	
104	36.3	0.24	0.3963	6.852220398
105	36.3	0.14	0.2312	
110	52.0	0.8	0.9231	
111	22.3	0.34	0.9134	
112	55.0	0.73	0.7964	
113	55.0	0.47	0.5127	
114	55.0	0.25	0.2727	
115	55.0	0.16	0.1745	
201	52.7	2.19	2.4949	
				0.416 miles to sensor 2011
202	53.3	0.08	0.0901	0.237 miles to sensor 2010
203	54.3	0.42	0.4638	assume negligible effect from sensor 2010
204	55.0	0.81	0.8836	
205	53.5	0.59	0.6617	
210	49.0	2.27	2.7796	
				0.416 miles to sensor 2011
211	38.7	0.08	0.1240	0.237 miles to sensor 2010
212	20.7	0.34	0.9871	assume negligible effect from sensor 2010
213	16.0	0.73	2.7375	
214	23.0	0.65	1.6957	

Congestion Item Calculations

Past 320 to Ridley Park		
Travel time (min)	6.85	7
Delay (min)	5.08	5
Avg Speed (MPH)	14.19	14

420 to Ridley Park (SB)		
Travel time (min)	1.84	2
Delay (min)	0.59	1
Avg Speed (MPH)	37.24	37

MacDade to I-95		
Travel time (min)	3.72	4
Delay (min)	2.56	3
Avg Speed (MPH)	17.24	17



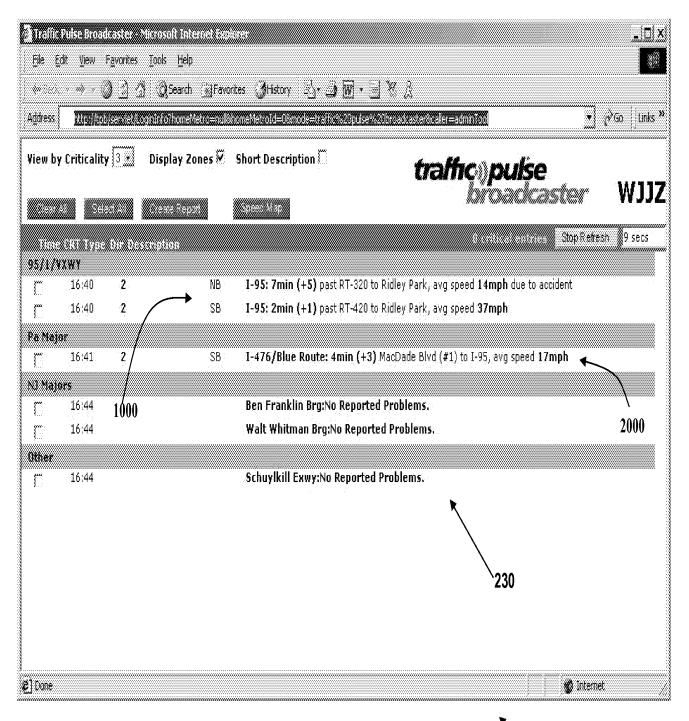




FIG. 66

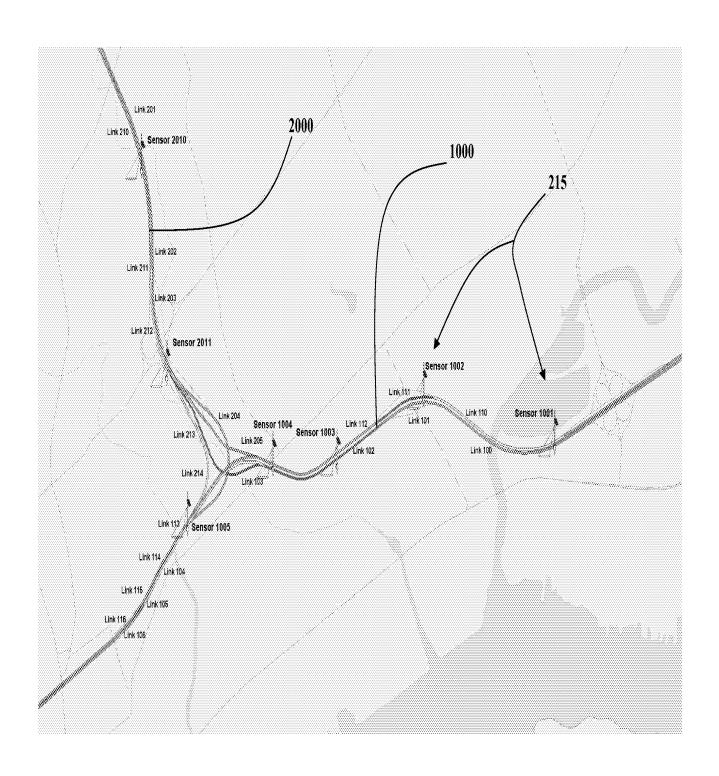


FIG. 67